Amendments to the Claims:

1-5. (Cancelled)

6. (Previously Presented) A method for displaying information during an interventional procedure, comprising:

scanning a scanner calibrator to acquire an image of said scanner calibrator, said scanner calibrator comprising at least one fiducial and said image of said scanner calibrator comprising a representation of said at least one fiducial;

determining a position relative to a tracking system of the scanner calibrator when the image of the scanner calibrator was acquired;

determining a position relative to the tracking system of a scanner tracker fixed to a scanner;

determining a transform (T_c) between said scanner calibrator and said scanner tracker from the determined positions of the scanner calibrator and the scanner tracker;

calculating a transform (T_i) that maps a location relative to the tracking system of said at least one fiducial to a position of said representation of said at least one fiducial in the image of the scanner calibrator;

calculating a transform (T_s) between said scanner tracker and said image of said scanner calibrator based at least in part on said determined transform (T_c) between said scanner calibrator and said scanner tracker and said calculated transform (T_i) mapping said location of said at least one fiducial to said position of said representation of said at least one fiducial in the image of the scanner calibrator;

scanning at least a portion of an anatomy of a patient to acquire a plurality of anatomical images of said portion of said anatomy;

determining a position relative to the tracking system of a patient tracker associated with the patient;

calculating a transform (T_p) between said patient tracker and said scanner tracker;

determining a transform (T_r) between said patient tracker and said plurality of anatomical images based at least in part on said transform (T_p) between said patient tracker and said scanner tracker and at least in part on said transform (T_s) between said scanner tracker and said image of said scanner calibrator;

determining a transform (T_t) between an instrument used in said interventional procedure and said patient tracker;

calculating a transform (T_n) between said instrument and said plurality of anatomical images based at least in part on said determined transform (T_t) between said instrument and said patient tracker and said determined transform (T_r) between said patient tracker and said plurality of anatomical images; and

displaying an updated current position of said instrument on at least one of said plurality of anatomical images based at least in part on said calculated transform (T_n) between said instrument and said plurality of anatomical images.

7. (Previously Presented) The system of claim 12 wherein the application logic is further operable to:

receive said plurality of scanner images of said portion of said anatomy;

determine a position of a patient tracker associated with said patient;

calculate a fourth transform between said patient tracker and said scanner tracker;

determine a fifth transform between said patient tracker and said plurality of scanner images of said portion of said anatomy based at least in part on said fourth transform and said third transform;

determine a relationship between an instrument used in said interventional procedure and said patient tracker; and

calculate a sixth transform between said instrument and said plurality of scanner images of said portion of said anatomy based at least in part on said determined relationship between said instrument and said patient tracker and said determined fifth transform; and further including:

a display device operable to display an updated current position of said instrument on at least one of said plurality of scanner images of said portion of said anatomy based at least in part on said calculated sixth transform.

8-11. (Cancelled)

12. (Previously Presented) A system for displaying information during an interventional procedure, comprising:

a scanner operable to scan at least a portion of an anatomy of a patient to acquire a plurality of scanner images of said portion of said anatomy;

a tracking system operable to detect a position of said patient;

an image guided interventional system having associated application logic operable to:

control the scanner to scan a scanner calibrator to acquire at least one image of said scanner calibrator, said scanner calibrator comprising at least one fiducial and said at least one image of said scanner calibrator comprising a representation of said at least one fiducial;

determine a first transform between said scanner calibrator and a scanner tracker associated with the scanner;

calculate a second transform that maps a location of said at least one fiducial to a position of said representation of said at least one fiducial; and

calculate a third transform between said scanner tracker and said at least one image of said scanner calibrator based at least in part on said first transform and said second transform.

13. (Original) The system of claim 7, further comprising an instrument tracker affixed to said instrument.

14. (Original) The system of claim 7, wherein said patient tracker is mounted on a table of said medical imaging system.

15. (Original) The system of claim 7, wherein said patient tracker is invasively affixed to said patient.

16. (Original) The system of claim 7, wherein said patient tracker is non-invasively affixed to said patient.

17. (Previously Presented) The system of claim 7, wherein the scanner tracker is affixed to said scanner.

18. (Currently Amended) A computer-readable medium having stored thereon an instruction set to be executed, the instruction set, when executed by a processor, causes the processor to:

~~determining~~ determine a transform between a calibration image of a scanner calibrator having at least one imageable fiducial and a scanner in which the calibration image is generated;

receive a plurality of anatomical images of a portion of an anatomy of a patient for use during an interventional procedure generated by the scanner;

determine a position of a patient tracker associated with said patient;

calculate a transform between said patient tracker and the scanner which generates the anatomical images;

determine a transform between said patient tracker and said plurality of anatomical images based at least in part on said transform between said patient tracker and said scanner and at least in part on the transform between the calibration image and said scanner;

determine a current relationship between an instrument used in said interventional procedure and said patient tracker;

calculate a current transform between said instrument and said plurality of anatomical images based at least in part on said determined current relationship between said instrument and said patient tracker and on said determined transform between said patient tracker and said plurality of anatomical images; and

cause display of an updated current position of said instrument on at least one of said plurality of anatomical images based at least in part on said calculated current transform between said instrument and said plurality of anatomical images.

19. (Original) The computer-readable medium of claim 18, wherein the instruction set, when executed by the processor, further causes the processor to calculate a transform between said patient tracker and a scanner tracker associated with said scanner.

20. (Original) The computer-readable medium of claim 18, wherein the instruction set, when executed by the processor, further causes the

processor to calculate a transform between said scanner and at least one image of a scanner calibrator associated with said scanner.

21. (Previously Presented) The computer-readable medium of claim 18, wherein the instruction set, when executed by the processor, further causes the processor to calculate a transform between a scanner tracker associated with said scanner and the scanner calibrator.

22. (Previously Presented) The computer-readable medium of claim 21, wherein the instruction set, when executed by the processor, further causes the processor to determine said transform between said patient tracker and said plurality of anatomical images based at least in part on said calculated transform between said scanner tracker and said calibration image.

23. (Previously Presented) The computer-readable medium of claim 21, wherein the instruction set, when executed by the processor, further causes the processor to:

scan said scanner calibrator to acquire said calibration image;

determine a transform between said scanner calibrator and said scanner tracker;

calculate a transform that maps a location of said at least one imageable fiducial to a position of a representation of said at least one imageable fiducial in the calibration image; and

calculate said transform between said scanner tracker and said calibration image based at least in part on said determined transform between said scanner calibrator and said scanner tracker and said calculated transform mapping said location of said at least one imageable fiducial to said position of said representation of said at least one imageable fiducial in the calibration image.

24. (Cancelled)

25. (Original) A method for indicating, relative to a scanner image of a portion of a patient's anatomy, a position of an instrument being used in the vicinity of the patient while a patient remains on a scanning table of a scanner that

took the scanner image, the method comprising: receiving at least one scanner image of a portion of the anatomy of a patient taken by a scanner; receiving an indication of a position of a patient tracker, the position of the patient tracker being indicative of a position of the patient; determining a spatial relationship between the patient tracker and the scanner based at least in part on a known position of the scanner; determining a spatial relationship between the patient tracker and the at least one scanner image based at least in part on the spatial relationship between the patient tracker and the scanner and at least in part on a known spatial relationship of the scanner relative to the at least one scanner image; receiving an indication of a position of an instrument; determining a spatial relationship between the instrument and the patient tracker; determining a spatial relationship between the instrument and the at least one scanner image based at least in part on the spatial relationship between the instrument and the patient tracker and the spatial relationship between the patient tracker and the at least one scanner image; and visually displaying the spatial relationship between the position of the instrument and the at least one scanner image.

26. (Previously Presented) The method of claim 6 wherein determining a position of the patient tracker includes:

determining a position of the patient tracker when the portion of the anatomy is scanned; and

determining a position of the patient tracker after the patient is moved from the anatomy scanning position into a position in which the interventional procedure is performed.